



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of)

Paul E. Jacobs *et al.*)

Serial No. 09/679,039)

Filed: October 4, 2000)

For: E-MAIL SOFTWARE AND
METHOD AND SYSTEM FOR
DISTRIBUTING
ADVERTISEMENTS TO CLIENT
DEVICES THAT HAVE SUCH E-
MAIL SOFTWARE INSTALLED
THEREON

) Group No. 2642

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Technology Center 2600

LETTER TO OFFICIAL DRAFTSMAN
TRANSMITTING FORMAL DRAWINGS

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed are forty-two (42) sheets of formal drawings.

Respectfully submitted,

Dated: March 21, 2001By: Robert J. O'Connell

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I hereby certify that this correspondence is being deposited
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Deborah Dean

(Signature)

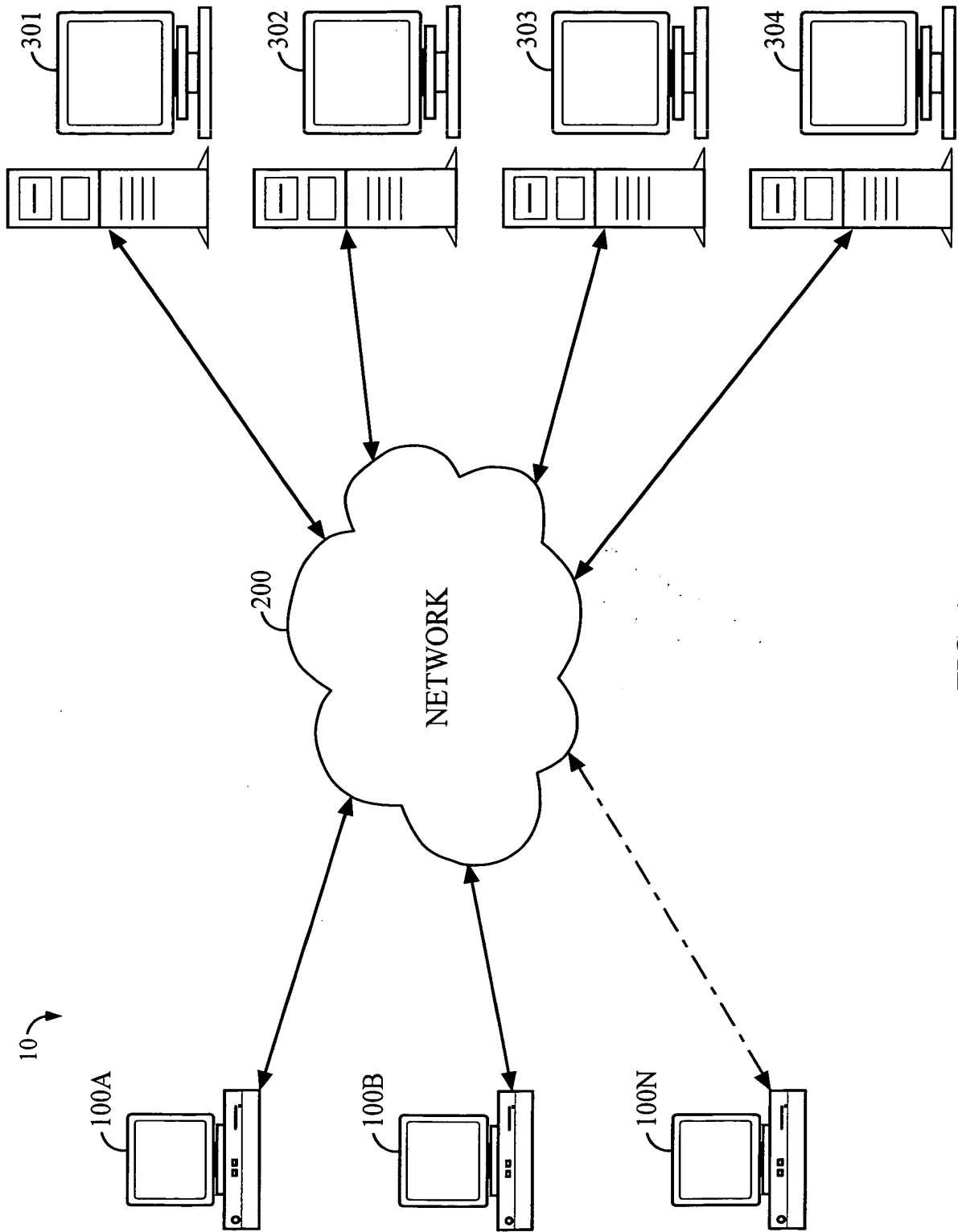


FIG. 1

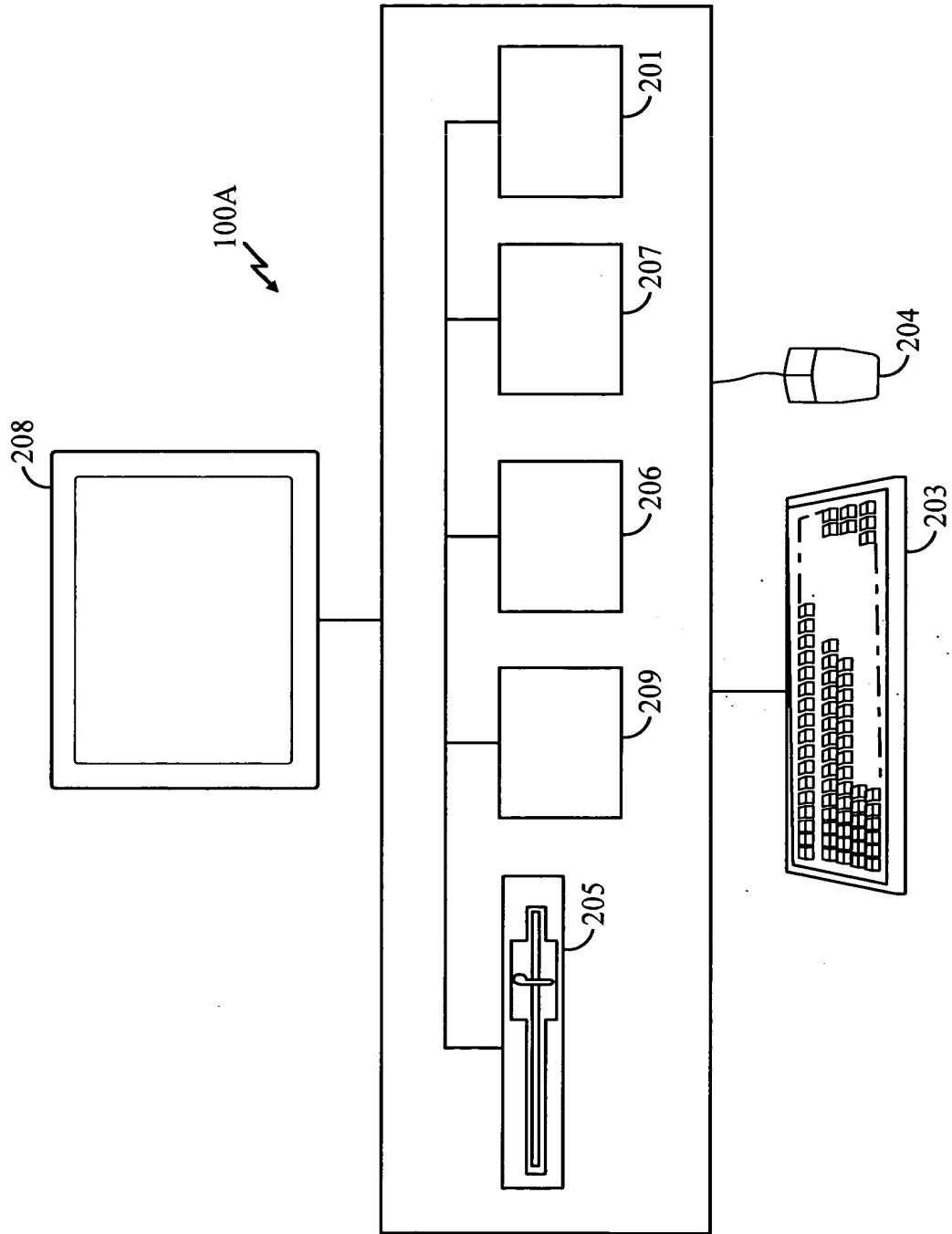


FIG. 2

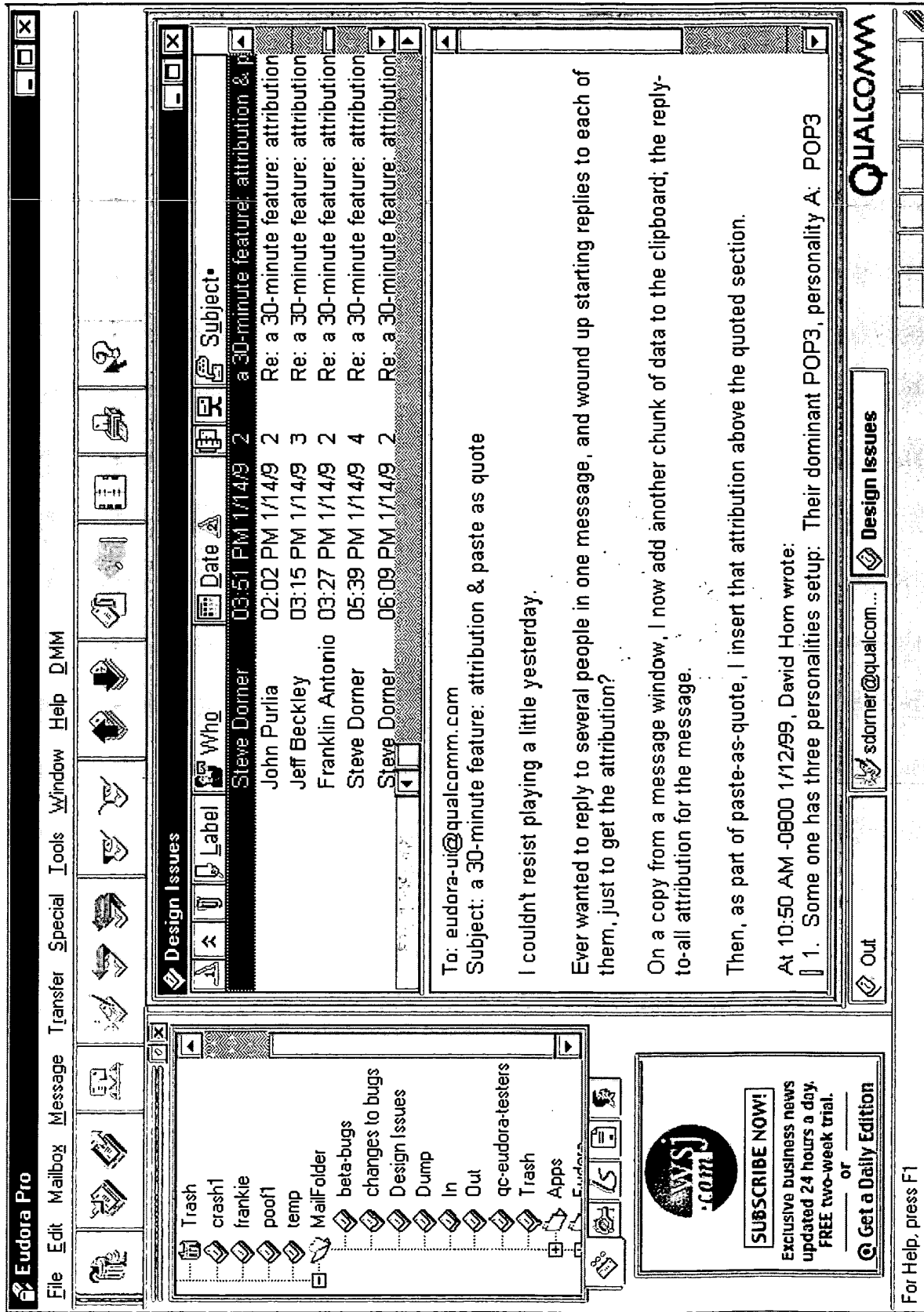


FIG. 3A

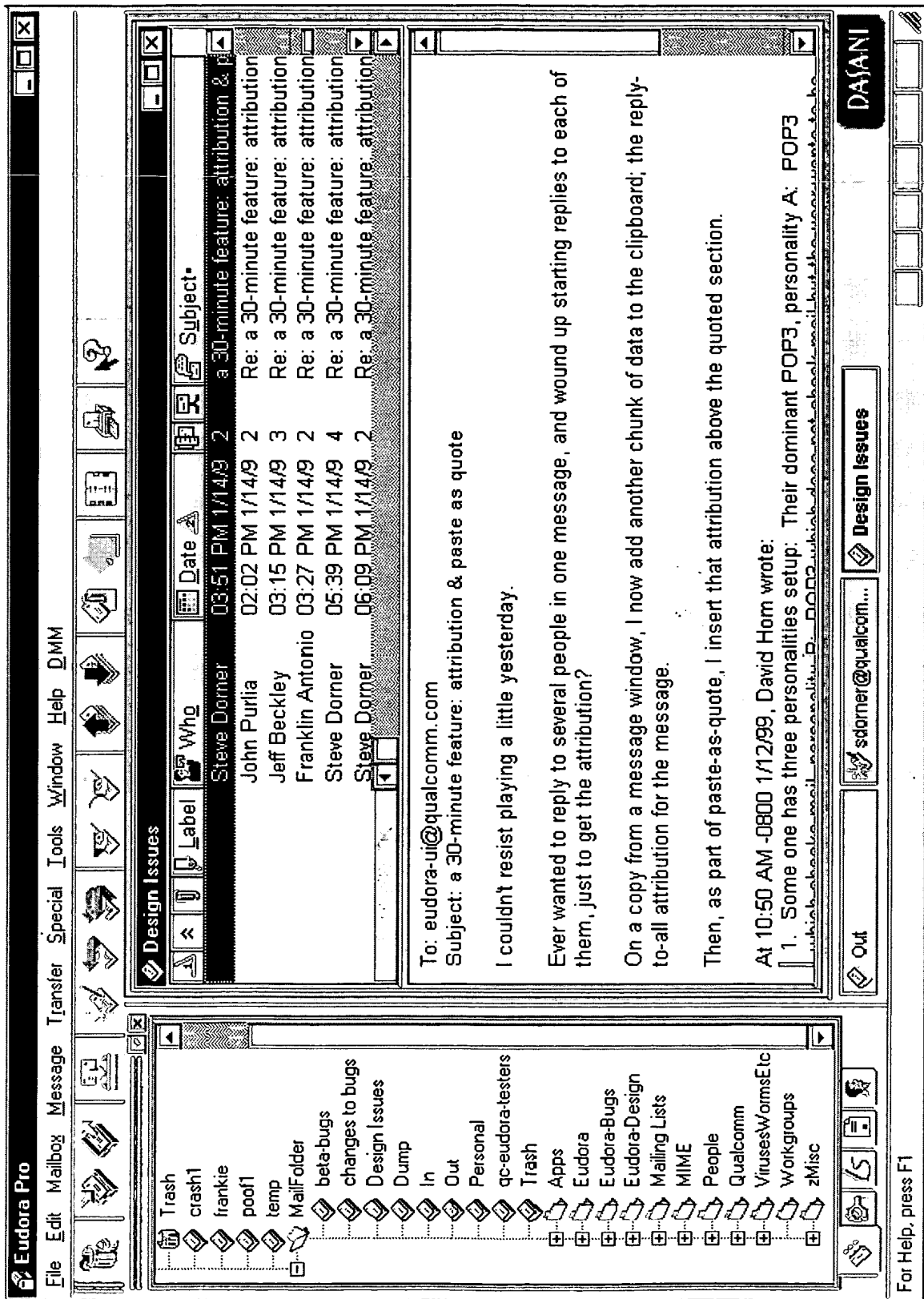


FIG. 3B

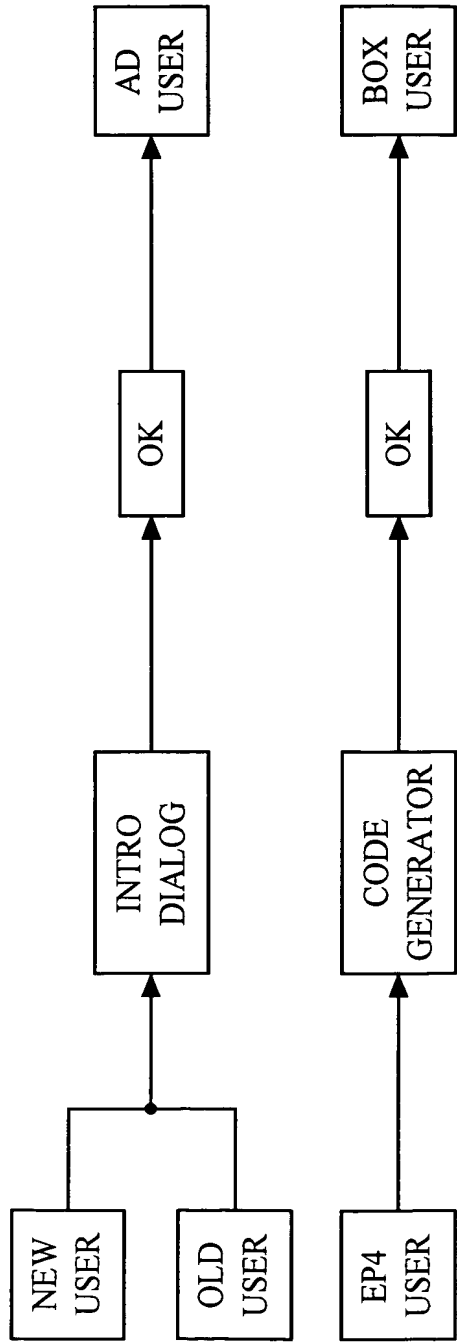


FIG. 4A

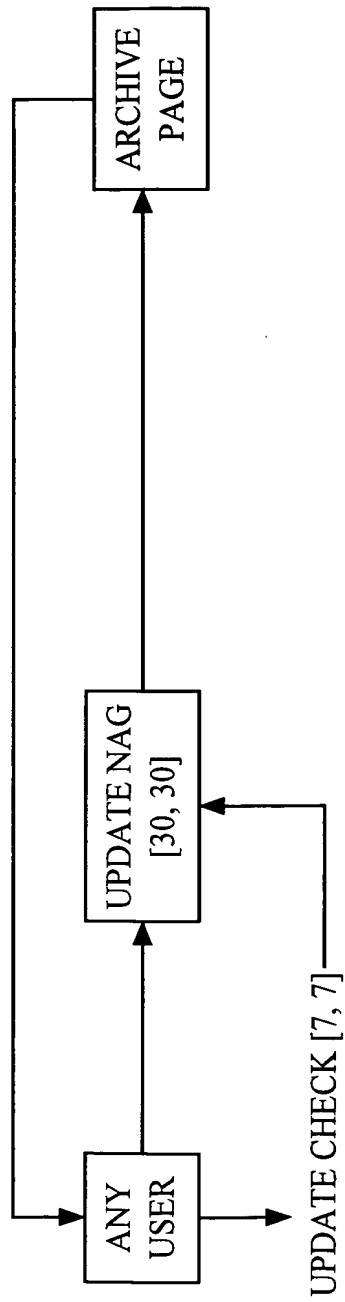


FIG. 7A

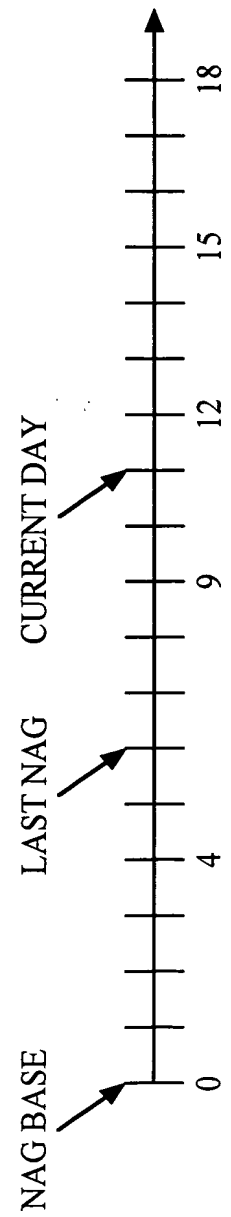


FIG. 11

WELCOME TO EUDORA!

EUDORA IS NOW LICENSED IN THREE WAYS; SPONSORED MODE, PAID MODE, AND LIGHT MODE. UNLESS YOU CHANGE MODES, EUDORA WILL RUN IN SPONSORED MODE, MEANING IT WILL DISPLAY ADS.

WE HAVE DONE OUR BEST TO PRESENT THE ADS IN A WAY THAT RESPECTS THE WORK YOU DO IN EMAIL. BY ALLOWING EUDORA TO DISPLAY ADS, YOU GET THE FULL POWER OF EUDORA FOR FREE AND WE CAN STILL PAY OUR BILLS.

IF YOU DECIDE THE ADS ARE NOT FOR YOU, YOU CAN CHANGE MODES. PAID MODE SHOWS NO ADS. CURRENT EUDORA PRO 4.X USERS WILL BE ABLE TO UPGRADE TO PAID MODE FOR FREE. OTHER USERS WILL BE ABLE TO PAY A LICENSE FEE TO GO TO PAID MODE. AT THIS STAGE IN TESTING, THE MACHINERY FOR PAID MODE IS NOT FULLY TESTED, AND PAID MODE IS UNAVAILABLE. LIGHT MODE ALSO SHOWS NO ADS, BUT HAS MANY FEWER FEATURES.

TO SWITCH FORMS OF EUDORA, PLEASE USE THE "PAYMENT & REGISTRATION" ITEM IN THE HELP MENU. TO LEARN MORE ABOUT THE THREE MODES, CLICK ON THE "TELL ME MORE" BUTTON BELOW.

TELL ME MORE

OK

FIG. 4B

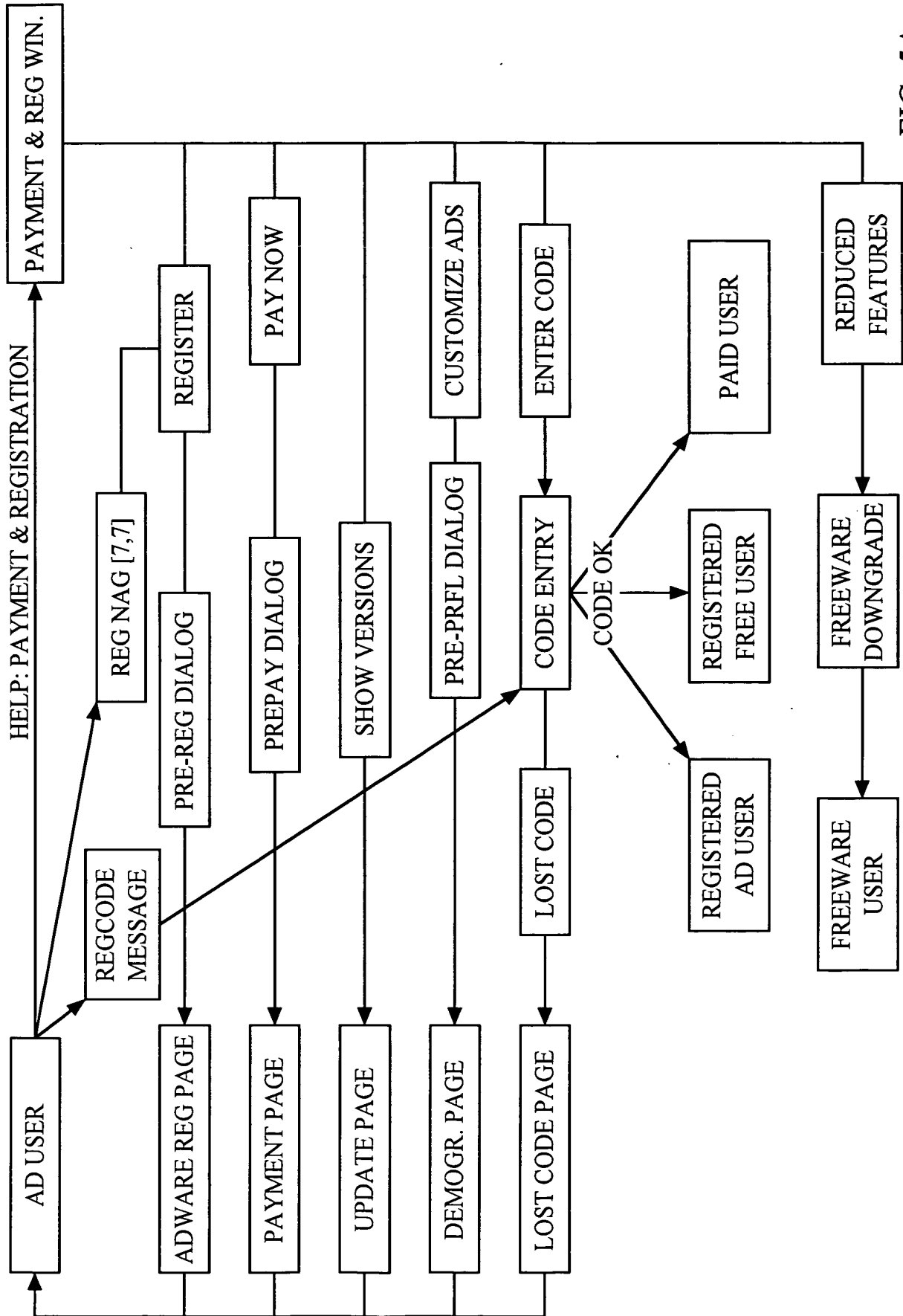


FIG. 5A

☐
☐

PAYMENT & REGISTRATION

WHICH EUDORA IS RIGHT FOR YOU?

SPONSERD MODE
(FREE, WITH ADS)

PAID MODE
(COST MONEY,
NO ADS)

LIGHT MODE
(FREE, FEWER
FEATURES)

KEEPING CURRENT

REGISTER
WITH US

CUSTOMIZE
THE ADS
YOU SEE

FIND THE
LATEST UPDATE
TO EUDORA

YOUR REGISTRATION INFORMATION

< NO REGISTRATION NAME >

< NO REGISTRATION CODE >

CHANGE
YOUR
REGISTRATION

TAKE ME TO THE TO THE EUDORA WEB SITE FOR MORE INFORMATION

FIG. 5B

— WOULD YOU LIKE TO REGISTER YOUR COPY OF EUDORA ? —

AS A REGISTERED USER OF EUDORA WE WON'T NAG YOU AS OFTEN AS WE DO. WE'LL ALSO
ERECT A GIANT STATUE IN YOUR IMAGE ON THE FRONT LAWN OF OUR CORPORATE
HEADQUARTERS (*).

HOW COOL IS THAT? C'MON... REGISTER! IT'S FUN AND EASY!

(* GIANT STATUE OFFER VOID ON THE PLANET EARTH)

MAYBE LATER

TAKE ME TO THE REGISTRATION PAGE

FIG. 5C

— THANKS FOR CHOOSING TO REGISTER EUDORA! —

YOU'LL NEXT BE WALKED THROUGH A FEW QUICK STEPS, AS DESCRIBED BELOW, BEFORE REGISTRATION IS COMPLETE:

- EUDORA WILL OPEN YOUR WEB BROWSER AND TAKE YOU TO OUR REGISTRATION PAGE
- WE'LL FILL IN SOME SIMPLE REGISTRATION INFORMATION ON THE WEB SITE
- WE'LL THEN EMAIL A EUDORA REGISTRATION CODE BACK TO YOU
- THE NEXT TIME YOU CHECK MAIL, EUDORA WILL AUTOMATICALLY RECOGNIZE THIS CODE AND DISPLAY A DIALOG BOX INVITING YOU TO CONFIRM YOUR REGISTRATION INFORMATION
- TA DA! YOU'LL THEN BECOME A REGISTERED USER OF EUDORA... THANKS!

FIG. 5D

— THANKS FOR CHOOSING TO PURCHASE EUDORA! —

YOU'LL NEXT BE WALKED THROUGH A FEW QUICK STEPS, AS DESCRIBED BELOW, BEFORE YOUR PURCHASE IS COMPLETE:

- EUDORA WILL OPEN YOUR WEB BROWSER AND TAKE YOU TO OUR PAYMENT & REGISTRATION PAGE
- YOU'LL BE ASKED TO PROVIDE YOUR PAYMENT AND REGISTRATION INFORMATION ON THE WEB SITE
- WE'LL THEN EMAIL A EUDORA REGISTRATION CODE BACK TO YOU
- THE NEXT TIME YOU CHECK MAIL, EUDORA WILL AUTOMATICALLY RECOGNIZE THIS CODE AND DISPLAY A DIALOG BOX INVITING YOU TO CONFIRM YOUR REGISTRATION INFORMATION
- TA-DA! YOU'LL THEN BECOME A PAID MODE USER... CONGRATULATIONS!

CANCEL

CONTINUE

FIG. 5E

☐

THANK YOU FOR YOUR REGISTRATION! _____

TO COMPLETE YOUR REGISTRATION, PLEASE ENTER THE NAME YOU REGISTERED UNDER AND YOUR REGISTRATION CODE BELOW.

THE EXACT NAME YOU REGISTERD UNDER:

FIRST NAME:

JOHN

LAST NAME:

MANYJARS

YOUR REGISTRATION CODE:

48925-89A2-B1149

I LOST THE CODE

CANCEL

OK

FIG. 5F

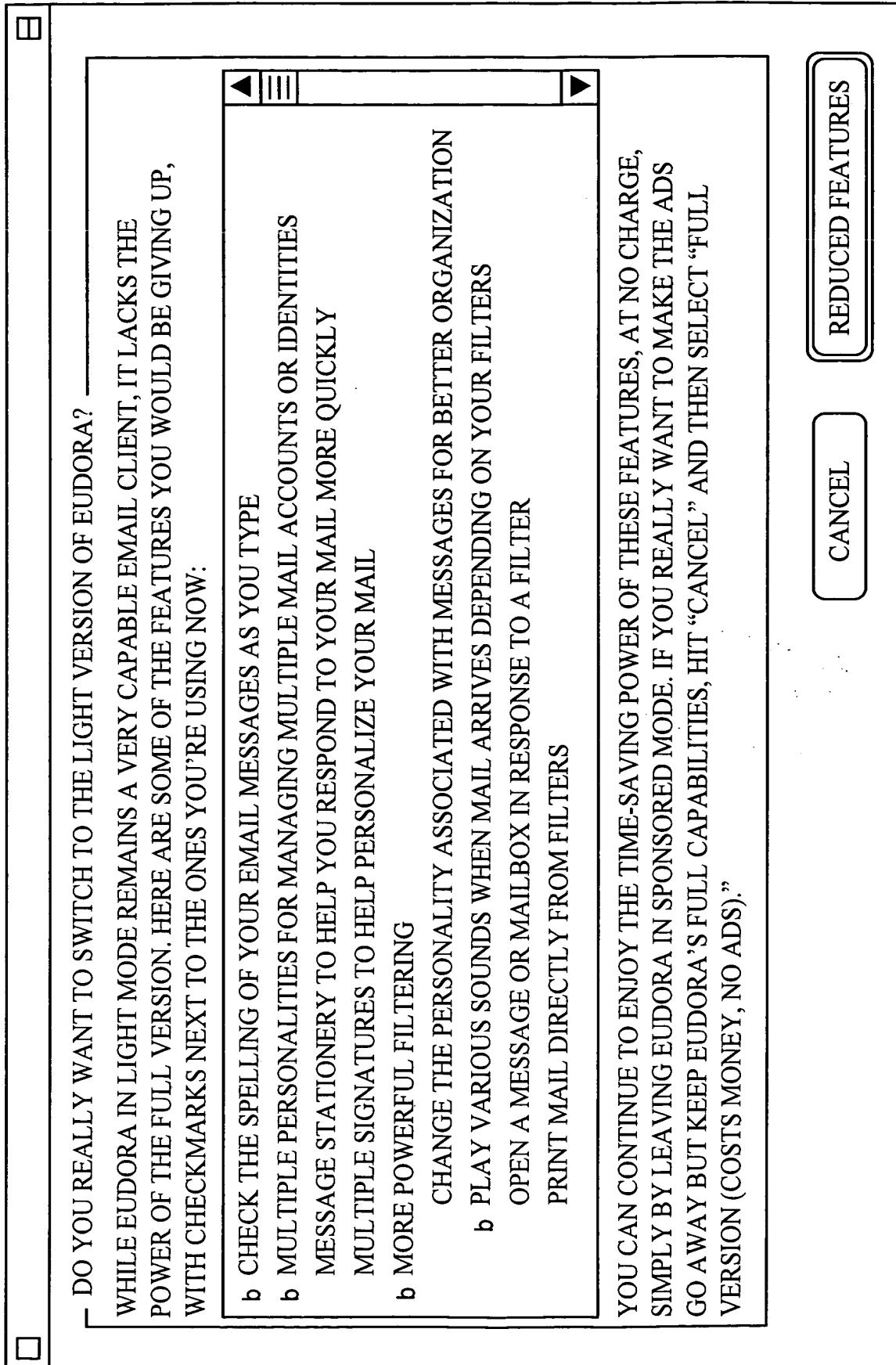


FIG. 5G

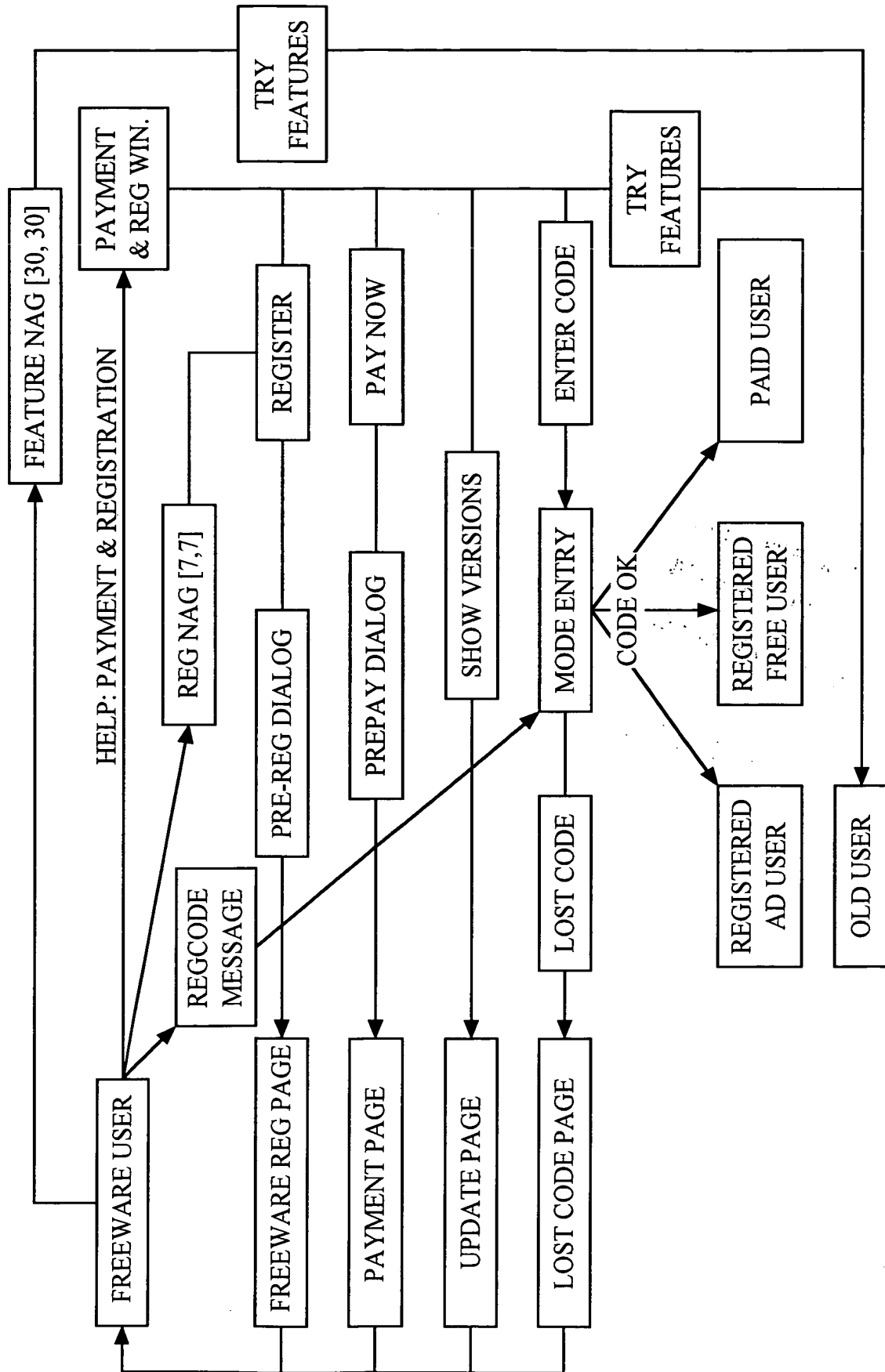


FIG. 6A

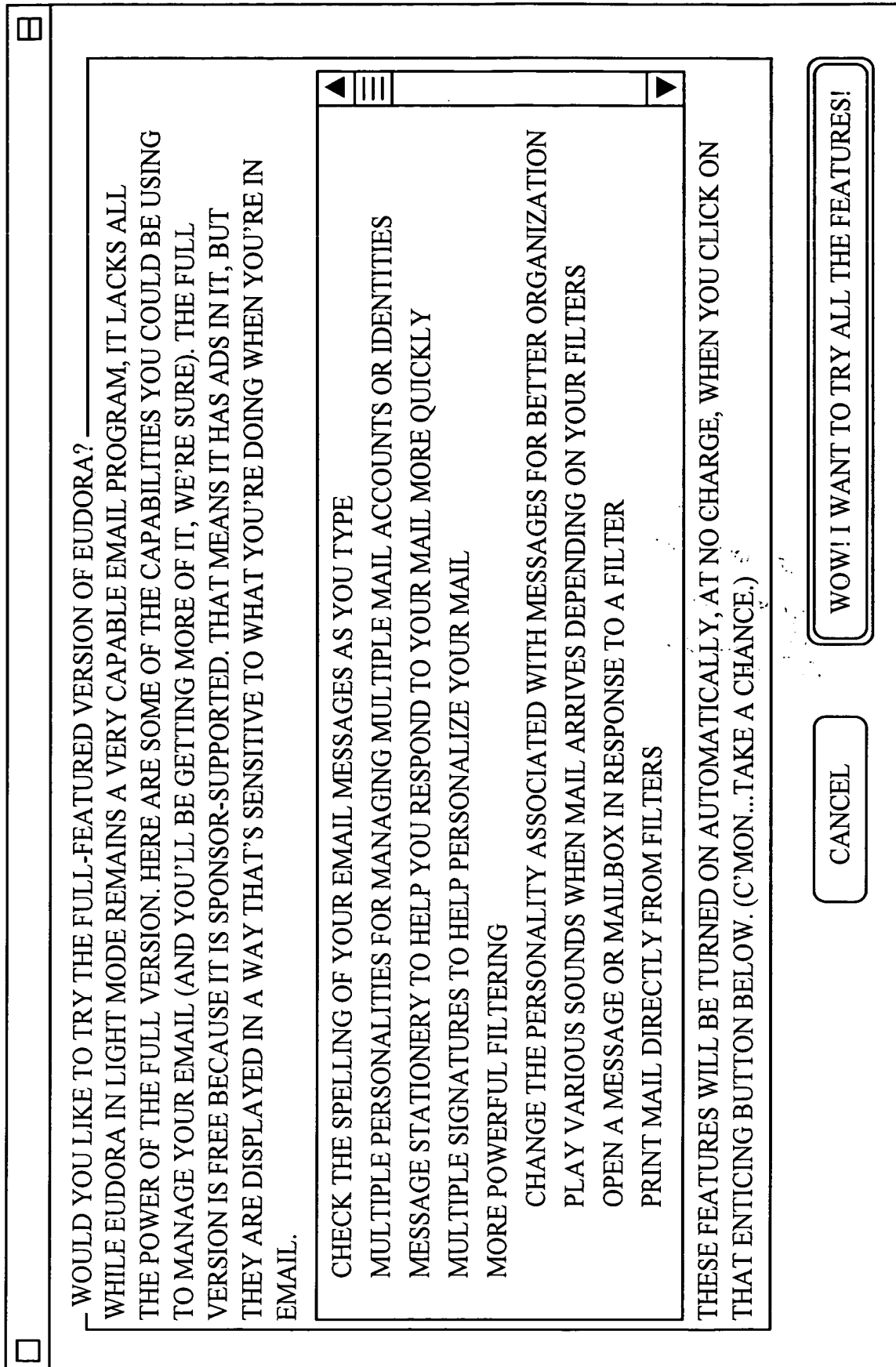


FIG. 6B

<input type="checkbox"/>	<input type="checkbox"/>
<p>THERE ARE UPDATES AVAILABLE TO EUDORA</p> <p>YOU HAVE EUDORA VERSION 4.1. THE FOLLOWING UPDATES HAVE BECOME AVAILABLE SINCE THIS VERSION WAS RELEASED. IF YOU'D LIKE MORE INFORMATION ON ANY OF THESE UPDATES, SIMPLY FOLLOW THE LINKS. IF YOU'D RATHER WE NOTIFY YOU OF UPDATES, <u>FOLLOW THIS</u>.</p> <p><u>EUDORA 5.3</u> THIS IS A MAJOR UPGRADE, WITH GREAT NEW FEATURES LIKE AUTOMATIC</p> <p><u>EUDORA 4.2</u> THIS UPDATE IS MOSTLY BUG FIXES. THIS UPDATE IS FREE TO YOU.</p> <p><u>PRINTED MANUAL</u> YOU CAN BUY A PRINTED MANUAL FOR EUDORA.</p>	

FIG. 7B

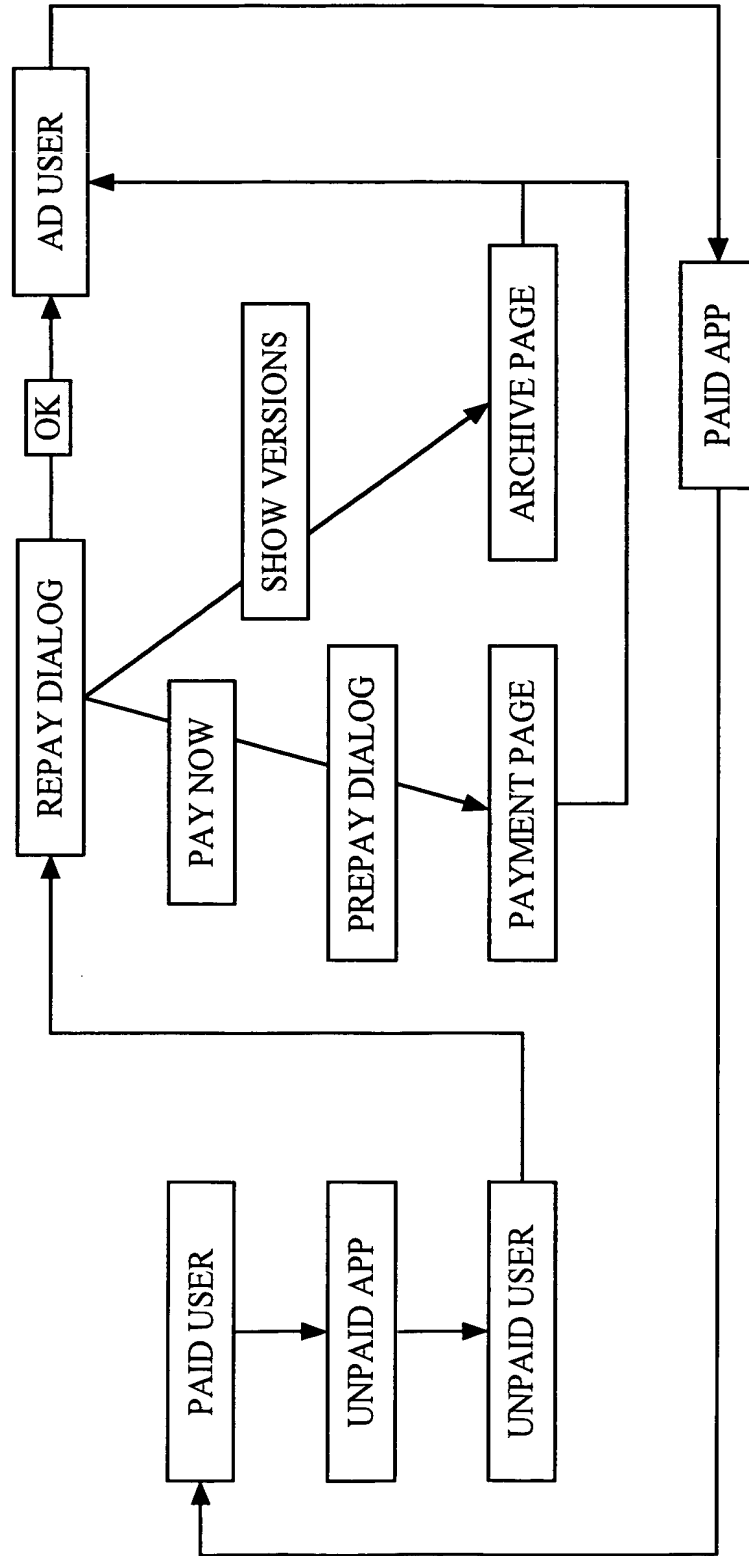


FIG. 9

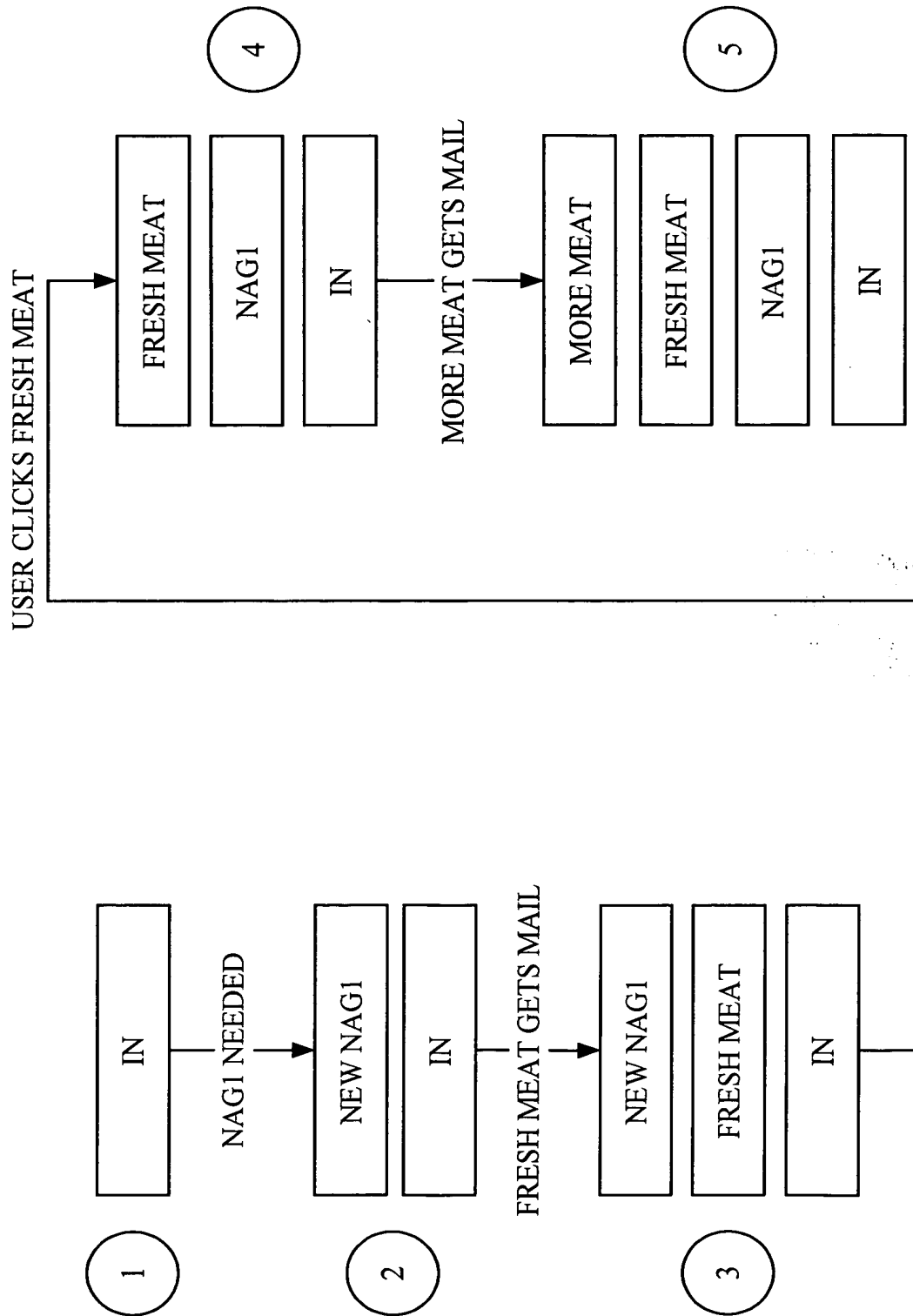









FIG. 10

LINK HISTORY

TYPE	SITE	DATE VISITED
	APPLE COMPUTER	WED, SEP. 1, 1999, 4:48 PM
	FTP.QUALCOMM.COM/EUDORA	TODAY, 11:26 AM
	QUALCOMM STORE	WED, SEP. 1, 1999, 4:48 PM
	MAC OS RUMORS	ASAP!
	MDUDZLAK@QUALCOMM.COM	TODAY, 11:23 AM
	WWW.QUALCOMM.ONES.PRODUC...	WED, SEP. 1, 1999, 4:48 PM
	WWW.EUDORA.COM	ATTEMPTED

VIEW

REMOVE

FIG. 12A

☐

☐

— YOU CAN'T GET THERE FROM HERE —

YOU'RE NOT CONNECTED TO THE INTERNET NOW. HELP ME COPE.
CONNECT YOU AND VISIT THE SITE, RECORD A BOOKMARK FOR LATER
REMINDE YOU TO VISIT IT NEXT TIME YOU ARE CONNECTED.

CONNECT TO THE INTERNET AND VISIT T

BOOKMARK THIS SITE TO VISIT L

BOOKMARK THE SITE, AND REMIND YOU
YOU'RE CONNECTED TO THE INTER

VISIT NOW

BOOKMARK

REMINDE ME

☐ REMEBER YOUR CHOICE FOR NEXT TIME

FIG. 12B

ASSUMPTIONS	
AVERAGE CONNEC. SPEED, Xbps	28.8
AVERAGE AD SIZE, Xbps/cm	9.3
NUMBER OF USERS	8,000,000
NUMBER OF HOURS RUNNING EUDORA	2
NUMBER MAILCHECKS PER USER PER HOUR	2
PLAYLIST ENTRY SIZE, BYTES	500

FIG. 13A

IMPLICATIONS						
# OF NEW ADS PER USER PER DAY	# SECONDS DOWN-LOADING ADS	# SECONDS ADDED PER CHECK	8x USERS AD BAND-WIDTH, Xbps	AD Xbps/100,000 USERS	AVG. CONN-ECTIONS, 1000'	8 x USERS PLAYLIST BAND-WIDTH, Xbps
10	26	6	67	0.8	2.4	4
15	39	10	101	1.3	3.6	5
20	52	13	135	1.7	4.8	7
25	65	16	168	2.1	6.0	9
30	78	19	202	2.5	7.2	11
35	90	23	235	2.9	8.4	12
						PLAYLIST Xbps/100,000 USERS
						0.0
						0.1
						0.1
						0.1
						0.1
						0.1
						0.2

FIG. 13B

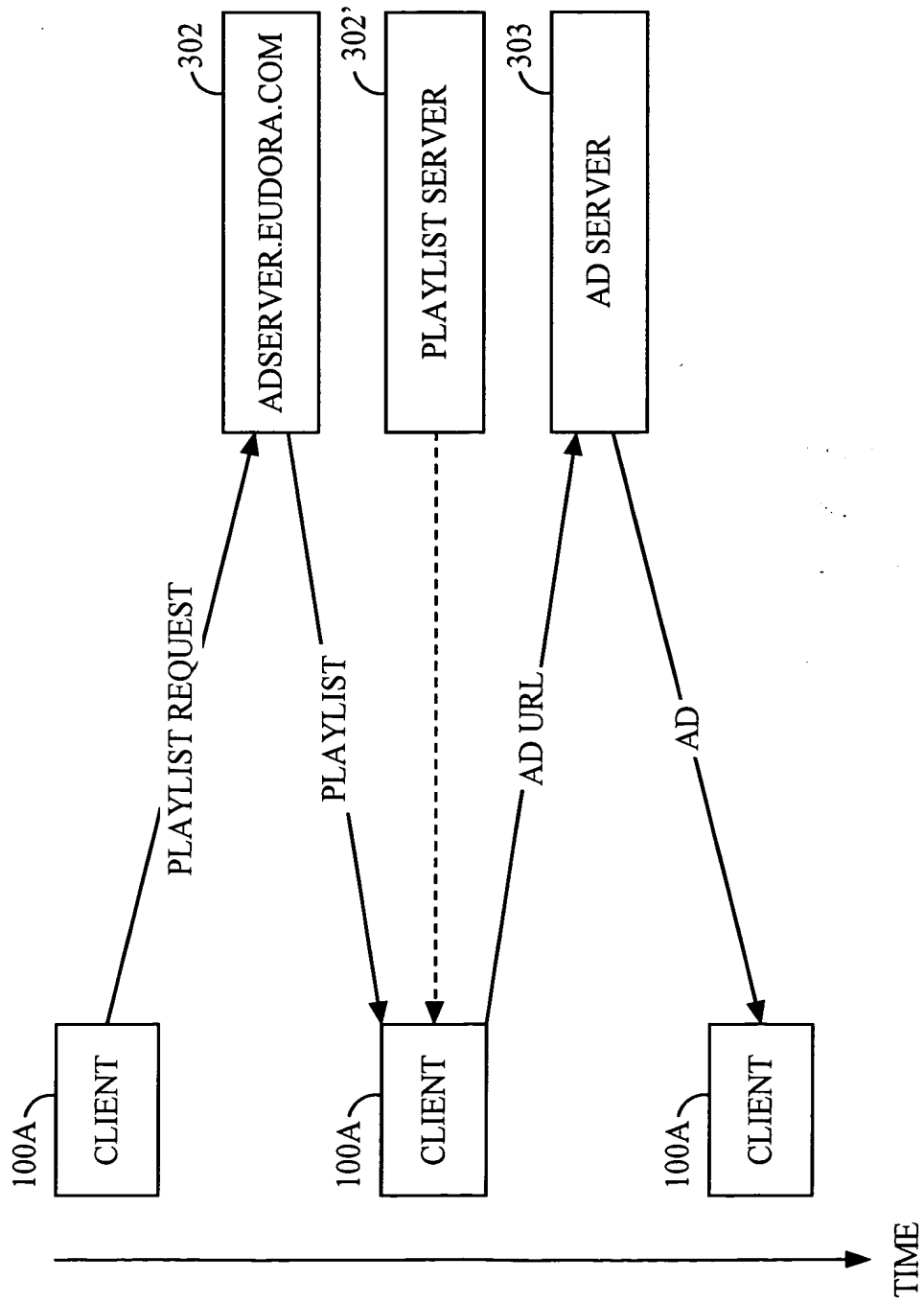


FIG. 14


```

////////////////////////////////////
// Main ad scheduler
ScheduleMain
{
// Has a new day dawned?
Do CheckForNewDay
// Are we within the current ad's showFor?
if ( ad.thisShowTime < ad.showFor )
{
// there is nothing to be done
return
}
// At this point, we know that we need a new ad
// Perform housekeeping tasks on the old one
do AdEndBookkeeping
// Pop out of a block if all ads on par
if ( block isn't all playlists )
{
find ad with minimum ad.numberShown
if ( ad.numberShown >= blockGoal )
set block to all playlists
}
// If we are over our quota of regular ads for the day,
// look for a runout
if ( adFaceTimeToday > faceTimeQuota )
{
do ShowARunout
}
else
{
Do ShowARegularAd
}
}
// end ad schedule main

```

FIG. 15A

```

////////////////////
// We must perform certain tasks when the calander day
// changes.
CheckForNewDay
{if ( the calander day has changed )
{
// Perform housekeeping tasks on the ad currently showing
Do StopShowingCurrentAd
// Runout ads are charged for a full showFor if they've been
// shown
// at all on a given day. Charge any runout ads if they've
// been
// shown at all.
for runout ads
{
if ( ad.thisShowTime > 0 )
{
ad.totalTimeShown += ad.showFor
ad.thisShowTime = 0
}
}
// Now, reset the counters for all ads to reflect the fact
// that
// a new day has dawned.
for all ads
{
ad.numberShownToday = 0
}
// Record yesterday's facetime
// Might not literally be yesterday, be sure to use
// whatever day the app was last run on
set old current day's facetime to totalFaceTimeToday
// and reset our global regular ad facetime counter
adFaceTimeToday = 0
totalFaceTimeToday = 0
// if we were in a block, back out
set block to all playlists
}
}
// end CheckForNewDay

```

FIG. 15B

```

////////////////////
// This function shows a runout ad, and if it
// can't find one, goes to a rerun
ShowARunout
{
for runout ads
{
// has the ad been flushed?
if ( ad.flushed )
try next ad
// are we done showing this runout today?
if ( ad.numberShownToday > ad.dayMax )
try next ad // this one's used up for the day
// are we done showing this runout for ever and ever?
if ( ad.shownFor > ad.shownForMax )
try next runout ad // this one's used up forever
// are we between the ad's start and end date?
if ( ad.startDate < the current date < ad.endDate )
try next runout ad
// the ad is not supposed to run today
// do we actually HAVE the ad?
if ( ad has not been downloaded )
{
ask for ad to be downloaded
try next ad
}
// ok, we believe we should show this runout
// we are now in runout state
Do ShowAnAd
return
}
// if we haven't found a runout ad, we will go to "rerun"
state
Do ShowARerun
}
// end ShowARunout

```

FIG. 15C

```

////////////////////////////////////
// Rerun state. Look for a regular ad to rerun
ShowARerun
{
for regular ads [ in current block ]
{
// has the ad been flushed?
if ( ad.flushed )
try next ad
// is this ad recent enough to rerun?
if ( ad.lastShownDate is older than returnInterval )
try next ad
// this one is too old to rerun
// if in block, show ads only if it's their "turn"
if ( ad.numberShownToday >= blockGoal )
try next ad // need to find a friend in this block
// are we between the ad's start and end dates?
if ( ad.startDate < the current date < ad.endDate )
try next ad
// the ad is not supposed to run today
// do we actually HAVE the ad?
if ( ad has not been downloaded )
{
ask for ad to be downloaded
try next ad
}
// ok, at this point we can show this ad, but because
// we're in rerun, we don't keep the books
Do ShowAnAd
return
}
// if we get here, we have no ads to show. Punt.
return
}
// end ShowARerun

```

FIG. 15D

```

////////////////////
// Show a regular ad
ShowARegularAd
{
for regular ads [ in current block ]
{
// has the ad been flushed?
if ( ad.flushed)
try next ad
// are we done showing this ad today?
if (ad.numberShownToday > ad.dayMax )
try next ad // this one's used up for the day
// if in block, show ads only if it's their "turn"
if ( ad.numberShownToday >= blockGoal )
try next add // need to find a friend in this block
// are we done showing this ad for ever and ever?
if ( ad.shownFor > ad.showForMax )
try next ad // this one's used up forever
// are we between the ad's start and end dates?
if ( ad.startDate < the current date < ad.endDate )
try next ad
// the ad is not supposed to run today
// do we actually HAVE the ad?
if ( ad has not been downloaded )
{
ask for ad to be downloaded
try next ad
}
// ok, we believe we should show this ad
// we are now in regular state
Do ShowAnAd
return
}
// if we get here, we have failed to find a regular
// ad. Go to runout
Do ShowARunout
}
// end ShowARegularAd

```

FIG. 15E

```

////////////////////////////////////
// Perform necessary housekeeping when we're taking
// down an ad
AdEndBookkeeping
{
// In rerun state, we don't do any bookkeeping
if ( in RerunState )
return
// Account for at most ad.showFor seconds, provided
// we've shown the ad for at least ad.showFor seconds
// Note that this means we don't charge for time beyond
// ad.showFor seconds, which is important
if ( ad.thisShowTime >= ad.showFor )
{
ad.numberShownToday += ad.showFor
ad.shownFor++
// we do NOT reset thisShowTime here, we do it in
// AdStartBookkeeping. It actually doesn't matter where
// we do it, provided we are careful NOT to do it for
// runout ads.
}
}
// end AdEndBookkeeping

```

FIG. 15F

```
////////////////////////////////////  
// Show an ad, including bookkeeping and block handling  
ShowAnAd  
{  
  // If the ad is in a block, notice that  
  if ( it's in a "block" playlist )  
  {  
    if ( not currently in a block )  
    {  
      find ad in block with minimum numberShown  
      make that our ad  
      set blockGoal to minimum numberShown+1  
    }  
    set current block to this playlist  
  }  
  // now do bookkeeping  
  Do AdStartBookkeeping  
  // and actually show it  
  Do DisplayThatAd  
}
```

FIG. 15G

```
////////////////////////////////////  
// Perform housekeeping when we put up an ad  
AdStartBookkeeping  
{  
// In return state, we don't do any bookkeeping  
if ( in RerunState )  
return  
// For regular ads  
if ( it's a regular ad )  
{  
ad.thisShowTime = 0  
ad.lastShownDate = now  
}  
}  
// end AdStartBookkeeping
```

FIG. 15H

PERSISTANT ADS	
PLAYLIST REQUEST	FACE TIME USED TO DETERMINE HOW MUCH ADVERTISING TO SEND TO CLIENT NOT USED
PLAYLIST RESPONSE CLIENTINFO	REQINTERVAL FLUSH RELATIVELY LARGE: ONE OR MORE DAYS USED. SINGLE PLAYLIST COMPLETELY SPECIFIES LIST OF ADS CLIENT SHOULD HAVE
PLAYLIST RESPONSE SCHEDULING PARAMETERS	SHOWFORMAX NOT USED

FIG. 16A

SHORT-LIVED ADS	
PLAYLIST REQUEST	FACE TIME FACE TIME LEFT NOT USED USED TO DETERMINE HOW MANY ADS CLIENT SHOULD RECEIVE
PLAYLIST RESPONSE CLIENTINFO	REQINTERVAL FLUSH NOT USED. INSTEAD, CLIENT REQUEST NEW PLAYLIST WHENEVER ADS "RUN LOW". NOT USED
PLAYLIST RESPONSE SCHEDULING PARAMETERS	SHOWFORMAX USED TO DETERMINE HOW LONG AN AD RUNS

FIG. 16B

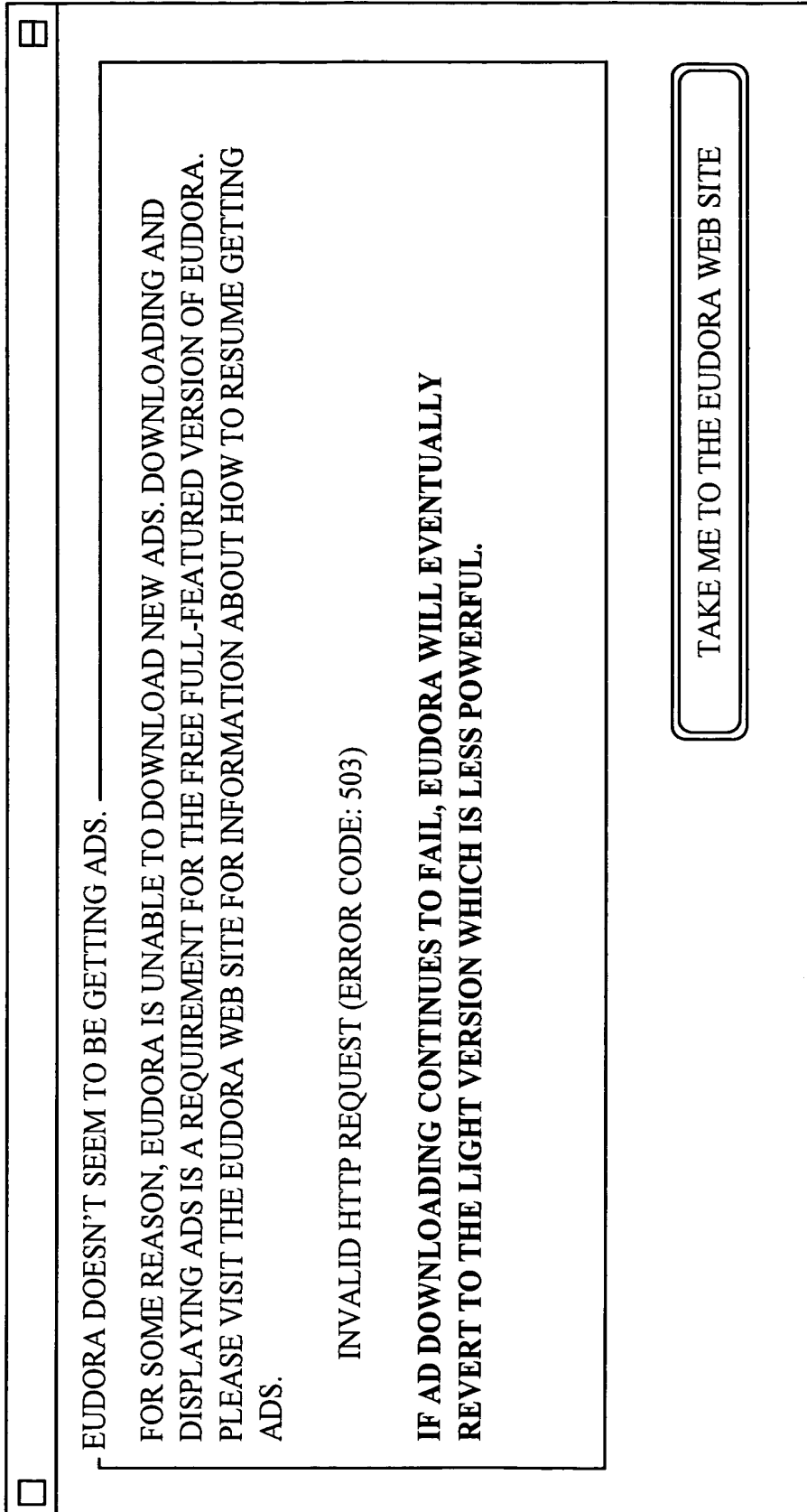


FIG. 17A

SOMETHING SEEMS TO BE COVERING THE AD.

IT'S PROBABLY INADVERTENT, BUT EUDORA HAS DETERMINED THAT YOU ARE COVERING UP ALL OR A SIGNIFICANT PORTION OF AN AD. THE SOFTWARE IS DESIGNED TO NOTIFY YOU WHEN THIS HAPPENS IN THE HOPES THAT YOU WILL STOP COVERING UP THE AD. IF YOU DON'T, THIS WINDOW WILL KEEP POPPING UP (WHICH YOU WILL PROBABLY FIND QUITE ANNOYING).

WE'VE ALWAYS GOT SOME GOOD STUFF UNDER DEVELOPMENT BACK AT THE HOME OFFICE, AND IT'S THE ADVERTISING IN EUDORA THAT ENABLES US TO CONTINUE TO DEVELOP THE SOFTWARE WHILE PROVIDING IT TO YOU FOR FREE. WE'VE WORKED HARD TO MAKE SURE THE ADVERTISING ISN'T ANNOYING AND WE GENUINELY HOPE THAT YOU ARE NOT DELIBERATELY TRYING TO COVER THE ADS BECAUSE THEY'RE BOTHERING YOU. OF COURSE, YOU CAN CHOOSE TO PAY US FOR EUDORA BY CHOOSING "PAYMENT & REGISTRATION" FROM THE "HELP" MENU AND CLICKING ON "PAID FULL VERSION." OR YOU CAN REMOVE WHATEVER IS OBSCURING THE AD.



FIG. 17B

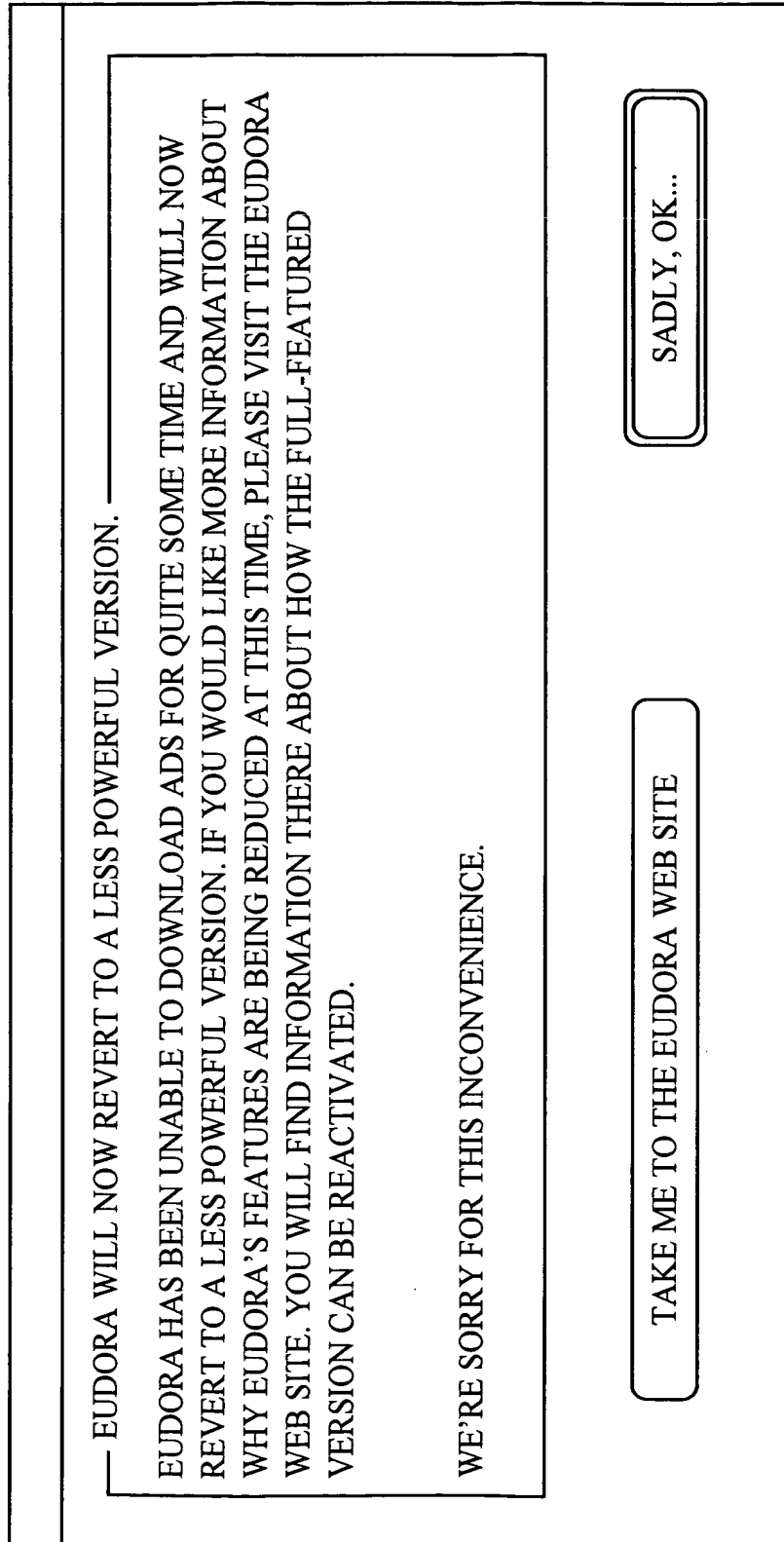


FIG. 17C

IN ORDER TO MAKE EUDORA WORK AS WELL AS POSSIBLE, IT'S IMPORTANT THAT WE KNOW HOW PEOPLE USE IT. WE ASK USERS FOR THIS INFORMATION AT RANDOM. LOOKS LIKE IT'S YOUR TURN. IF YOU'RE OPEN TO HELPING US THIS WAY, ALL YOU HAVE TO DO IS CLICK "GENERATE INFO" BELOW AND A MESSAGE WILL BE CREATED. YOU CAN REVIEW THE CONTENTS OF THE MESSAGE IF YOU LIKE, AND THEN SEND IT TO US OR NOT - - THAT'S UP TO YOU.

WE VALUE OUR PRIVACY; WE'RE PRETTY SURE YOU VALUE YOURS. SO WE WANT YOU TO KNOW WHAT WE'LL BE COLLECTING AND GIVE YOU A CHANGE TO ELIMINATE ANYTHING YOU DON'T WANT TO SEND. SIMPLY UNCHECK THE BOXES NEXT TO ANY INFORMATION YOU'D RATHER NOT SEND.

PLEASE UNDERSTAND THAT AS SOON AS WE RECEIVE YOUR EMAIL, WE WILL THROW AWAY THE HEADERS THAT IDENTIFY THE MAIL AS COMING FROM YOU. YOU SEE, WE DON'T ACTUALLY NEED TO KNOW WHO YOU ARE TO FIND YOUR INFORMATION HELPFUL. SO WE PROMISE TO PROTECT YOUR PRIVACY AND TURN YOU INTO "JUST A NUMBER." :-)

- ☐ YOU'RE DEMOGRAPHIC DATA
- ☐ ADVERTISEMENT INFORMATION
- ☐ NON-PERSONAL SETTINGS
- ☐ YOUR NET/EUDORA USAGE
- ☐ EUDORA FEATURES YOU USE

CANCEL

FIG. 18A

PAGE	APPLICABLE QUERY PARTS																	
	REGFIRST																	
	EMAIL																	
	REALNAME																	
	MODE																	
	DISTRIBUTORII																	
	VERSION																	
	PRODUCT																	
	PLATFORM																	
	ACTION																	
	PAY																	TOPIC
PAYMENT																		
FREEWARE REGISTRATION	REGISTER-FREE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ADWARE REGISTRATION	REGISTER-AD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOX REGISTRATIONS	REGISTER-BOX	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
LOST CODE	LOSTCODE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
UPDATE	UPDATE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PRO UPDATE	PROUPDATE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ARCHIVED	ARCHIVED	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PROFILE	PROFILE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
INTRODUCTION	INTRO																	
SUPPORT	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
QUICK TIME MISSING	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NO-QT
AD FAILURE	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	AD-FAIL
TUTORIAL	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TUTOR
FAQ	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	FAQ
LIGHT USERS	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	LIGHT
SEARCH SUPPORT	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SEARCH
NEWSGROUPS	SUPPORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	USENET

FIG. 19

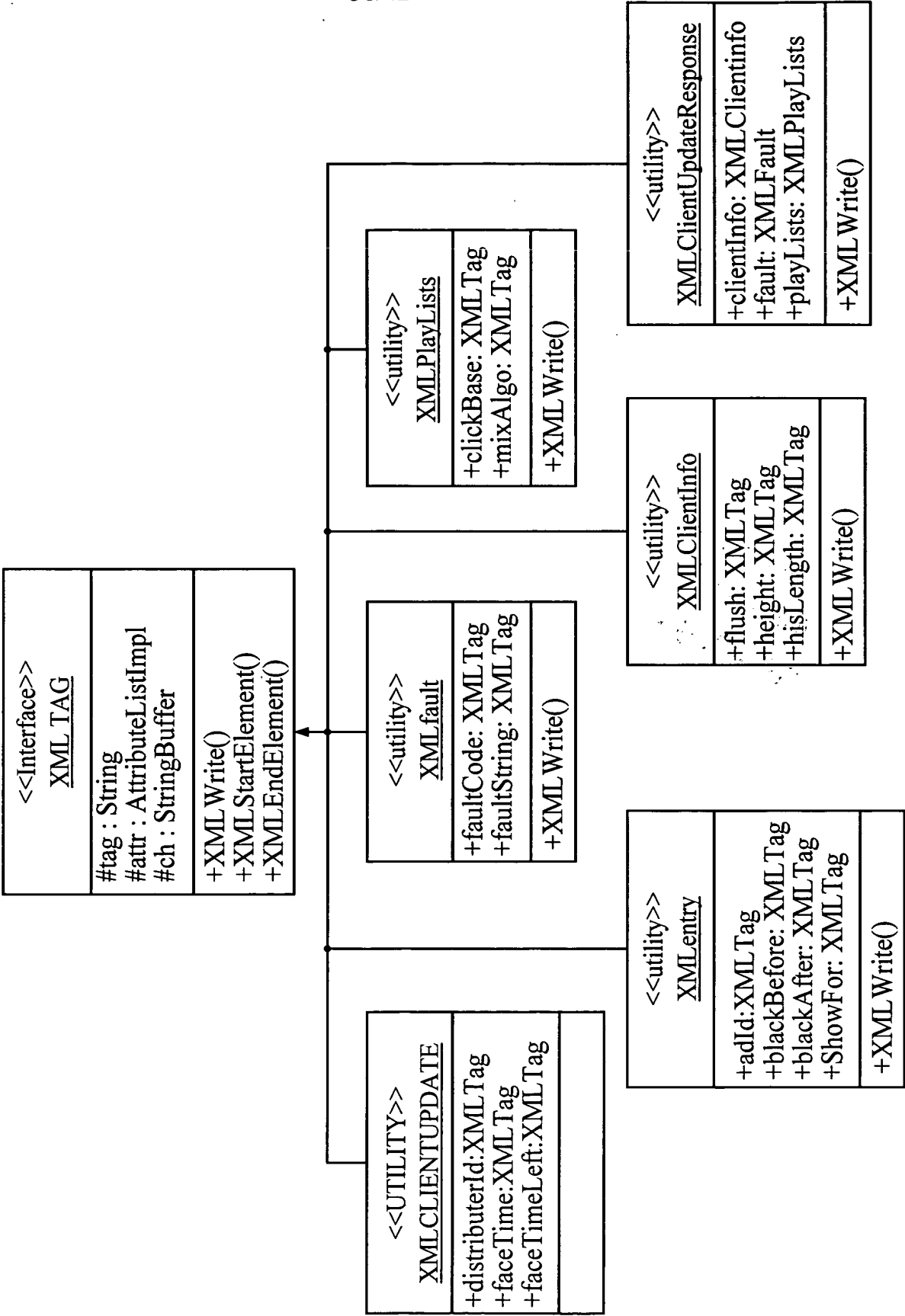


FIG. 20

% The list of available ads advantageously can be built from the following query:

```
ads = dbCon.prepareStatement("SELECT" * FROM ads WHERE StartDate<=today AND endDate>=today + 30 AND
AdType = "I" AND AdStatus = "A" AND ImpressionsServed<Impressions ORDERED BY ImpressionsServed ASC);

run out ads = dbCon.prepareStatement("SELECT * FROM ads WHERE StartDate <= today AND endDate >= today +
30 AND AdType = "R" AND AdStatus = "A" AND ImpressionsServed<Impressions ORDERED BY ImpressionsServed
ASC);
```

% The time required to deliver the ads advantageously can be calculated in the following manner.

face time left for today [seconds] = faceTime[today] - faceTimeUsedToday

(Comment: Face time left for today is the number of seconds the servlet can use to deliver special ads today.)

predict face time [seconds] = SUM(faceTime[tomorrow], faceTime[tomorrow+1], ... faceTime[tomorrow+reqInterval])

(Comment: Predict face time is the number of seconds the servlet predicts the user is going to have.)

goal show time left [seconds] = predict face time - faceTimeLeft

(Comment: Goal show time left is the number of seconds that the software provider needs to fill with ads.)

FIG. 21A


```
% Targeting
while (face time left for today) {
  if ad is not in the history {
    select ad [according to target = today]
    face time left for today -= ad.showFor
  }
  next ad
}

while (Goal show time left ) {
  if ad is not in the history {
    select ad [according to target]
    goal show time left -= ad.showFor
  }
  next ad
}
```

Default values:

- reqInterval = 1 day.
- facetime = 30 minutes
- faceTimeQuota is ?
- histLength = 31 days

FIG. 21B

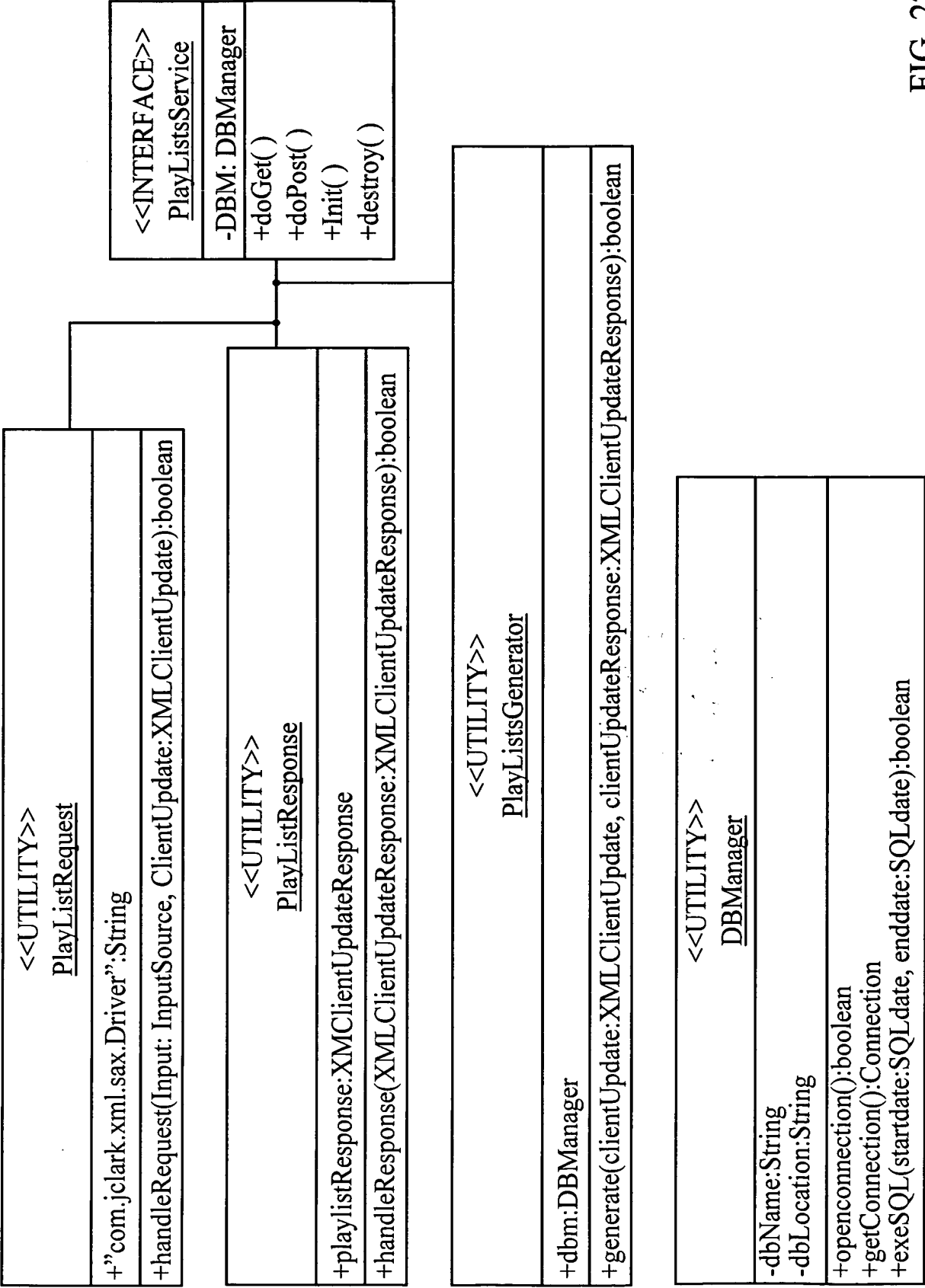


FIG. 22

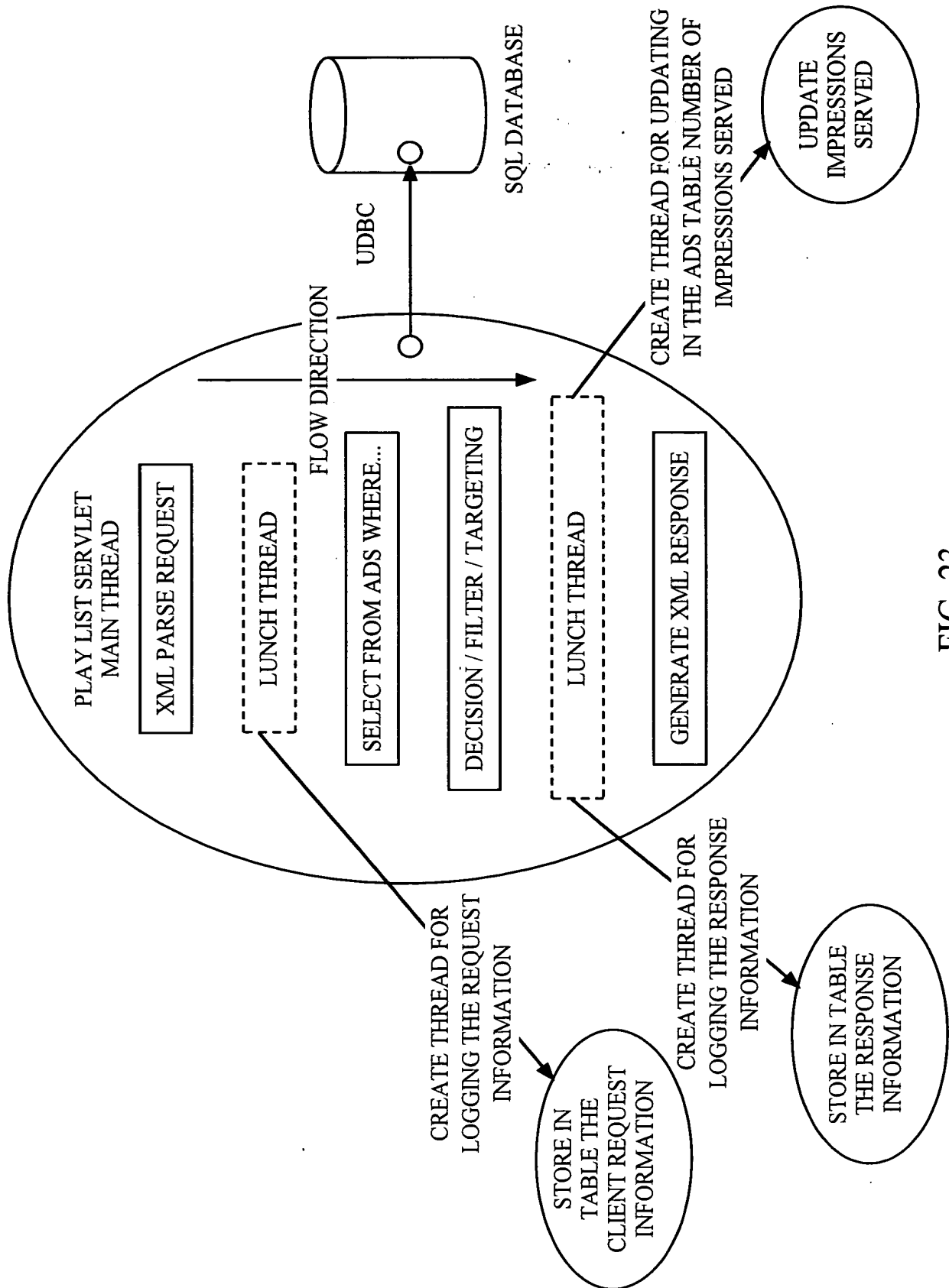


FIG. 23